

News Release



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BASF at Drinktec 2009 in Munich

- **Azo dyes can be replaced by nature-identical carotenoids from BASF**
- **Environment-friendly filtering of beer with Crosspure**
- **Universal Formulas make global marketing easier**
- **Safety and traceability in focus**

Visit us at Drinktec 2009
in Munich, Germany,
September 14-19, 2009
New Trade Fair Center
Hall B1, Booth 335

Ludwigshafen, Germany – September 03, 2009 – With the range extending from light yellow to deep orange and bright red, there is a wide variety of colors of soda pops, fruit juices and all kinds of sports drinks and other refreshing drinks on supermarket shelves. Yet it is not just the color of drinks that helps persuade the consumer to buy; healthy additives are also part of the present trend. BASF will be demonstrating its extensive expertise in this area at Drinktec 2009 in Munich, Germany from September 14 through 19 (Booth 335 in Hall B1). It offers its customers from the beverage industry more than 20 different drink ingredients, which not only contribute to consumers' health, but also provide an attractive color: healthy vitamins and carotenoids in juices and soda pops assist balanced and healthy nutrition, whilst carotenoids also give drinks the required color. For its customers in the brewing industry, BASF offers filtering aids that make beer clear and stable.

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Brilliant colors and high stability thanks to Lucarotin and LycoVit from BASF

A bright lemon yellow despite storage under neon light on the supermarket shelf? The stability of the color of drinks depends on various parameters: on the exposure to light, on the temperature, on the interactions between the ingredients, on the degree of homogenization and on the pH value. Compared with coloring foodstuffs such as red beet and natural coloring agents such as curcumin or artificial azo dyes, BASF's nature-identical carotenoids are considerably more stable. Furthermore, they are not dependent on the pH value of the medium or the degree of homogenization. The formation of collars of water or rings around the neck of the bottle and deposits of solid ingredients (sedimentation) at the bottom of the bottle can also be prevented with the BASF products. Coloring agent can also settle readily on the neck of transparent PET bottles. The removal of such undesirable discoloration can only be achieved with a large input of energy and time, resulting in increased costs prior to refilling. There is a solution to the problem: BASF's extremely stable carotenoid formulations prevent this staining effect reliably. They do not require plastic bottles to be pretreated in any special way and also, in many cases, do not require any modification to the drink recipe, e.g. with the help of hydrocolloids. BASF's carotenoids offer further advantages. Industrial production ensures a high and, above all, consistent product quality. As antioxidants they protect the drink, do not react with vitamin C and have only little effects on the taste. BASF offers two different carotenoids: beta-carotene (Lucarotin[®]) and, more recently, also lycopene (LycoVit[®]), which was approved as a novel food in the European Union (EU) in April 2009. Approval for LycoVit as a coloring agent in the EU is expected shortly.

Clear enjoyment in spite of storage

Consumers appreciate clear, pure specialty drinks, so clarifying and separating procedures are essential in the production process. Prior to filtering, beer contains proteins and polyphenols from the stems of the hops, which are responsible for the bitter taste. After a short time, depending on their concentration, they form complexes, which lead to cloudiness and alter the taste. Filtering aids such as BASF's innovative Crosspure[®], a crosslinked polyvinylpyrrolidone, not only clarify beer during production in one step, but also remove haze-forming polyphenols that are responsible for subsequent clouding of the beer during storage. Thus, Crosspure provides a convenient, economical 2-in-1 solution. Filtration with Crosspure is an environment-friendly alternative to the use of kieselguhr, because Crosspure can be regenerated continuously and used in existing filtration units. After filtration the insoluble Crosspure is separated off completely from the beer.

BASF's Universal Formulas give food industry customers more flexibility

More flexible applications, higher cost-effectiveness: BASF offers its food industry customers vitamin and beta-carotene formulas that are approved for use in every region of the world. Customer-friendly BASF Universal Formulas make it easier for internationally operating food producers to market their products in different regions, while continuing to meet specific regional market requirements. BASF formulas for fat-soluble vitamins A, D, E and K as well as beta-carotene and water-soluble vitamin B12 for use in beverages, foods and dietary supplements are suitable for use all over the world and so are highly flexible in their applications. Labels such as halal, kosher, vegetarian, etc. apply across the entire range of Universal Formulas, so there is no need for different labels for different regions. Another advantage for customers: the ingredients of Universal Formula products are accepted

in every region. This enables more flexible product interchange in the event of local and regional product shortages and reduces complexity in the supply chain. Customers who use our Universal Formulas no longer need to maintain multiple stocks of different product types for different regions. Especially in these times of global economic hardship, BASF offers its customers a high degree of flexibility coupled with cost management benefits.

S.E.T. – safety and traceability in focus

Especially where food and drink are concerned, consumers want to know what they are buying and what ends up in their stomachs. The requirements to be complied with by manufacturers are therefore correspondingly high in terms of safety, quality, traceability, and environmentally benign manufacture of individual products and ingredients. A method that makes all these aspects transparent is now being offered by BASF: the S.E.T. initiative allows manufacturers to trace exactly which ingredients were used and which conditions applied in the manufacture of a product.

S.E.T. stands for sustainability, eco-efficiency and traceability and is based on the certified eco-efficiency analysis. Eco-efficiency analysis analyzes the entire life cycle of a product or manufacturing process. The process therefore includes aspects such as environmental pollution and carbon dioxide (CO₂) emissions due to the products themselves and their precursor products. This method is also used by the Eco Institute in Freiburg, Germany.

In S.E.T., this principle is also applied to beverage ingredients, making sustainability tangible. The data generated in eco-efficiency analysis of our products are available to our customers. That way, customers can see at any time whether and to what extent the starting materials they use to manufacture their products are sustainable. The data are accessible to all customers anywhere in the world via GTNet[®] (Global Traceability Network), a global platform used in the food industry for

targeted sharing of product information. In this way, BASF helps its customers to meet consumers' growing expectations in terms of the sustainability and traceability of food products.

About BASF Nutrition Ingredients

BASF's Nutrition Ingredients business unit is a leading supplier of food ingredients and feed additives. The product portfolio for human nutrition includes vitamins, carotenoids, omega-3s and others. BASF offers products of outstanding quality produced with modern, state-of-the-art technologies. BASF also combines technical services and scientific expertise to meet the highest demands and to deliver the best value to the industry. Premium formulations are a key strength that has made BASF a leader in the industry. Further information is available at www.nutrition.basf.com

About BASF

BASF is the world's leading chemical company: The Chemical Company. Its portfolio ranges from chemicals, plastics and performance products to agricultural products, fine chemicals and oil and gas. As a reliable partner BASF helps its customers in virtually all industries to be more successful. With its high-value products and intelligent solutions, BASF plays an important role in finding answers to global challenges such as climate protection, energy efficiency, nutrition and mobility. BASF posted sales of more than €62 billion in 2008 and had approximately 97,000 employees as of the end of the year. Further information on BASF is available on the Internet at www.basf.com.